

CLAIMS

1. Device for activating an opening mechanism and/or a closing mechanism for lockable movable parts (10) on vehicles, such as flaps (10), doors or the like, which in the opening situation allow access at least to certain areas within the interior of the vehicle,

comprising a manual actuator which in the activating situation acts on at least one contact maker (13) of at least one switch (12),

wherein the actuated switch (12) switches on a drive for opening or closing the movable vehicle part (10),

and comprising a car body (40) on the vehicle or on the movable vehicle part (10), such as a door skin,

characterized in

that the car body (40) has a wall thickness (45) which is rigid in itself and non-compressible,

but that a free car body portion (43) is of such a large size relative to an adjoining substantially shape-stable neighboring area (42) of the car body,

that - when exerting a pressure (20) - this car body portion (43) will form a dent (43') by a travel stroke (29) and this dent (43') serves for actuating the switch (12).

2. Device for activating an opening mechanism and/or a closing mechanism of lockable movable parts (10) on vehicles, such as flaps (10), doors or the like, which in the opening situation allow access at least to certain areas within the interior of the vehicle,

comprising a manual actuator which in the activating situation acts on at least one contact maker (13) of at least one switch (12),

wherein the actuated switch (12) switches on a drive for opening or closing the movable vehicle part (10),

comprising an outer skin (40) on the vehicle or on the movable vehicle part (10), such as a door skin,

and comprising a decorative element (51), such as a company emblem (51), a model designation, or a decorative part, for decorative purposes and optionally having a visual information content arranged before, on and/or in the outer skin (40),

characterized in

that the decorative element (51) according to its decorative character and/or its information content is divided into stays (23, 27) with intermediately positioned penetrations (54),

and that at least one portion (23) of the stays (27) is elastically yielding (23') and forms the actuator for the switch (12).

3. Device according to claim 1 or 2, device according to claim 1 or 2, characterized in that the contact maker (13) of the switch (12) is arranged either directly or indirectly, i.e., via transmission members (33), in the yielding path (29) of the car body portion (43) or the decorative element portion (23).

4. Device according to one of the claims 2 to 3, characterized in that the contact-providing stay (23) of the decorative part (51) is flexible and acts in a contact-providing way onto the microswitch (12) upon being bent.
5. Device according to claim 4, characterized in that between neighboring stays (23, 27) of the decorative part (21) at least one separating cut (26) is arranged

and that the separating cut (26) increases the elasticity of flexure of the stay (23) or stays functioning as the switch actuator.
6. Device according to one of the claims 2 to 5, characterized in that the decorative part (51) is comprised of an insert or an attachment (50) which is movable relative to the outer skin (40) between at least two positions (50.1, 50.2),

that the attachment (50), after pressure actuation (20) of the yielding stay (23), can be transferred from a substantially flush or parallel contact position (50.1) relative to the surrounding neighboring area (42) of the outer skin into a projecting spaced position (50.2),

and that the attachment (50), projecting when in its spaced position (50.2), forms a hand grip for manually fully opening or closing the movable vehicle part.

7. Device according to claim 6, characterized in that the insert or attachment (50) is foldable (α) relative to the neighboring area (42) of the outer skin and is positioned in an angled position when in the spaced position (50.2).
8. Device according to claim 6 or 7, characterized in that the spaced position (50.2) of the decorative part (51) is a ready position for opening from where the completely opened position of the vehicle part (10) is realized by a further manual movement.
9. Device according to one of the claims 6 to 7, characterized in that the projecting attachment (50) can be returned, after a renewed actuation, from the spaced position (50.2) into its contact position (50.1).
10. Device according to one or several of the claims 6 to 9, characterized in that the reversal of the attachment (50) between its contact and spaced positions (50.1, 50.2) is

realized by the same drive which serves for opening or closing the movable vehicle part (10) or the corresponding lock.

11. Device according to claim 10, characterized in that a lever (47) supporting the foldable attachment (50) or insert is fixedly connected to a bearing shaft (59) for common rotation and the bearing shaft (59) is movable by the motor or transmission (60) of the drive (50).

12. Device according to claim 10, characterized in that the foldable attachment (50) or insert is connected, in the area of its axis (49), fixedly to a gear wheel (63) for common rotation,

wherein the gear wheel (63) engages a tooth rack (62) and the tooth rack (62) is longitudinally movable by the motor (50) or a transmission arranged downstream of the motor of the drive.

13. Device according to one of the claims 2 to 12, characterized in that a locking coupling is connected within the members of the drive (15) extending to the attachment (50) or insert,

that the locking coupling in the normal situation is engaged

and makes possible the motor-driven movement of the attachment (50) or insert,

and that the locking coupling in an emergency situation is automatically releasable in order to transfer the attachment (50) or insert then manually from its contact position (50.1) into its spaced position (50.2).

14. Device according to claim 13, characterized in that the locking coupling acts magnetically.
15. Device according to one of the claims 6 to 14, characterized in that the attachment (50) or insert of the outer skin (40) has several locations (23) which are effective for actuation of one or more contact makers (13) of one or more switches (12) and that these different actuating locations (23) perform different functions on the vehicle.
16. Device according to claim 15, characterized in that one actuation location (23) serves for opening and another for closing of the movable vehicle part and/or that these actuation locations (23), in conformity therewith, serve for performing a movement of the attachment (50) or insert between the contact position (50.1) and the spaced position (50.2).

17. Device according to one or more of the claims 1 to 16, characterized in that the switch (12) responds by means of its contact maker (13) to different magnitudes of deformation of the actuating location

and that different deformations of the actuating location trigger different functions in the vehicle, such as opening of the door, on the one hand, and closing of the door, on the other hand.

18. Device according to one of the claims 6 to 17, characterized in that a stationary insert (37, 39) is arranged under the movable attachment (50) in the outer skin (40)

and that the insert and attachment (37, 39; 50) comprise at least over areas thereof several layers (51, 52, 53), which upon pressure actuation (20) are commonly deformable but separately with regard to their layers.

19. Device according to claim 17, characterized in that the attachment (50) and the insert (37, 39) form a modular unit (21) mountable together on the outer skin (40) of the vehicle.

20. Device according to claim 18 or 19, characterized in that an inner layer (37) of the insert is comprised of elastomeric

material and covers a cutout (32) in the outer skin (40) of the vehicle in a sealing way

and that the contact maker (13) and optionally the switch (12) and further functional parts for the vehicle, such as a closing cylinder (48), are arranged in the area of the cutout (32).

21. Device according to one of the claims 18 to 20, characterized in that on the backside of the outer layer (51) of the attachment (50) provided with stays (23) and penetrations (54) a membrane (32) having elasticity of extension is arranged which closes the empty spaces of the penetrations (54).

22. Device according to one or several of the claims 6 to 21, characterized in that a layer of the insert or attachment (37; 50) is comprised of a shape-stiff material, such as metal, and forms a plate (53) which is rigid,

and that the plate (53) has a hole (55) through which in the actuation situation the pressure actuation force (20) is transmitted onto the deformable area of a further layer (38) arranged underneath.